

What is claimed is:

1. An absorbent article comprising
  - a topsheet
  - a backsheet
  - and an absorbent element positioned between the topsheet and the backsheet, said absorbent element comprising a fluid storage layer comprising a liquid absorbent thermoplastic composition which comprises a polymeric base material having particles of water-insoluble water swellable absorbent material dispersed therein, the liquid absorbent thermoplastic composition has a total absorption capacity of at least 2 grams per gram and is configured in a plurality of unattached spaced apart zones.
2. An absorbent article according to claim 1, wherein within the absorbent element the liquid absorbent thermoplastic composition represents at least 15% by weight of the total weight of the absorbent element.
3. An absorbent article according to claim 1 wherein each zone covers an area of not less than 0.001 cm<sup>2</sup>.
4. An absorbent article according to claim 1 wherein immediately adjacent unattached spaced apart zones are spaced apart from each other by a distance of not less than 0.1 mm.
5. An absorbent article according to claim 1 wherein the zones array composed of said unattached spaced apart zones provides a pattern size having total surface area extend of not less than 1 cm<sup>2</sup>.
6. An absorbent article according to claim 1 wherein said unattached spaced apart zones are regular or irregular in shape.
7. An absorbent article according to claim 1 wherein said unattached spaced apart zones are in the form of stripes being rectilinear or curved, dots, circles, squares, rectangles, triangles, lozenges, spirals and their combination.
8. An absorbent article according to claim 1 wherein the liquid absorbent thermoplastic composition has a total absorption capacity of at least 2 g/g.
9. An absorbent article according to claim 1 wherein the total absorption capacity of the entire article is of at least 1 gram.
10. An absorbent article according to claim 1 wherein the absorbent element comprises the liquid absorbent thermoplastic composition in the range from about 20% to about 100% by weight of the total weight of the absorbent element.

11. An absorbent article according to claim 1 wherein the storage layer consists of said liquid absorbent thermoplastic composition.
12. An absorbent article according to claim 1 wherein said liquid absorbent thermoplastic composition comprises from about 55% to about 99% by weight of a polymeric base material comprising a thermoplastic polymer or a mixture of thereof, and from about 1% to about 95% by weight of particles of water insoluble water swellable absorbent material.
13. An absorbent article according to claim 12 wherein said polymeric base material is a hot melt adhesive typically comprising from about 10% to about 50% by weight of a block copolymer, from about 0% to about 50% by weight of a tackifying resin, from about 10% to about 80% by weight of a plasticizer and from about 0% to about 2.0% by weight of antioxidant.
14. An absorbent article according to claim 1 wherein said absorbent element comprises at least one fluid distribution layer, said fluid distribution layer being sandwiched between the topsheet and the storage layer.
15. An absorbent article according to claim 1 wherein said absorbent element comprises at least one fibrous layer, said fibrous layer underlying the storage layer.
16. An absorbent article according to claim 1 wherein the liquid absorbent thermoplastic composition comprising a polymeric base material having particles of water-insoluble water swellable absorbent material dispersed therein, is applied onto a layer of the article, typically the backsheet, or fluid distribution layer underlying the topsheet if present, or fibrous layer underlying the storage layer if present, by printing or slot coating.
17. An absorbent article according to claim 1 wherein the backsheet is a breathable backsheet.
18. An absorbent article according to claim 1 wherein the article is an hygienic disposable absorbent article for feminine protection.
19. An absorbent article comprising
  - a topsheet
  - a backsheet
  - and an absorbent element positioned between the topsheet and the backsheet, said absorbent element comprising a fluid storage layer comprising a liquid absorbent thermoplastic composition which comprises a polymeric base material having particles of water-insoluble water swellable absorbent material dispersed therein, the liquid absorbent thermoplastic composition represents at least 15% by weight of the total weight of the

- absorbent element and is configured in a plurality of unattached spaced apart zones.
20. An absorbent article according to claim 19 wherein the liquid absorbent thermoplastic composition has a total absorption capacity of at least 1 gram per gram.
  21. An absorbent article according to claim 19 wherein each zone covers an area of not less than 0.001 cm<sup>2</sup>.
  22. An absorbent article according to claim 19 wherein immediately adjacent unattached spaced apart zones are spaced apart from each other by a distance of not less than 0.1 m
  23. An absorbent article according to claim 19 wherein the zones array composed of said unattached spaced apart zones provides a pattern size having total surface area extend of not less than 1 cm<sup>2</sup>.
  24. An absorbent article according to claim 19 wherein said unattached spaced apart zones are regular or irregular in shape.
  25. An absorbent article according to claim 19 wherein said unattached spaced apart zones are in the form of stripes being rectilinear or curved, dots, circles, squares, rectangles, triangles, lozenges, spirals and their combination.
  26. An absorbent article according to claim 19 wherein the liquid absorbent thermoplastic composition has a total absorption capacity of at least 2 g/g.
  27. An absorbent article according to claim 19 wherein the absorbent element comprises the liquid absorbent thermoplastic composition in the range from about 20% to about 100% by weight of the total weight of the absorbent element.
  28. An absorbent article according to claim 19 wherein the storage layer consists of said liquid absorbent thermoplastic composition.
  29. An absorbent article according to claim 19 wherein said liquid absorbent thermoplastic composition comprises from about 55% to about 99% by weight of a polymeric base material comprising a thermoplastic polymer or a mixture of thereof, and from about 1% to about 95% by weight of particles of water insoluble water swellable absorbent material.
  30. An absorbent article according to claim 19 wherein said polymeric base material is a hot melt adhesive typically comprising from about 10% to about 50% by weight of a block copolymer, from about 0% to about 50% by weight of a tackifying resin, from about 10% to about 80% by weight of a plasticizer and from about 0% to about 2.0% by weight of antioxidant.
  31. An absorbent article according to claim 19 wherein said absorbent element comprises at

least one fluid distribution layer, said fluid distribution layer being sandwiched between the topsheet and the storage layer.

32. An absorbent article according to claim 19 wherein said absorbent element comprises at least one fibrous layer, said fibrous layer underlying the storage layer.
33. An absorbent article according to claim 19 wherein the liquid absorbent thermoplastic composition comprising a polymeric base material having particles of water-insoluble water swellable absorbent material dispersed therein, is applied onto a layer of the article, typically the backsheet, or fluid distribution layer underlying the topsheet if present, or fibrous layer underlying the storage layer if present, by printing or slot coating.
34. An absorbent article according to claim 19 wherein the backsheet is a breathable backsheet.
35. An absorbent article according to claim 19 wherein the article is an hygienic disposable absorbent article for feminine protection.